

## ABSTRACT

A trigger engine and infrastructure for event registration and handling that is reliable, secure and scalable.

Transactional authenticated and/or encrypted messages (e.g.,

5 via MSMQ) are used to transport events across each server. A

stable recovery mechanism is provided wherein the recovery path

is nearly identical to the normal path. A trigger engine may

concentrate multiple similar requests into a single base

request for event notification, and upon receipt of the base

10 event, access tables maintained in the trigger engine to track

which client registered for which type of notification. In

this manner, only the base event request is registered

remotely, reducing the number of events that need to be

communicated to remote servers. Identical event requests from

15 clients may also be concentrated into a base event request, and

events distributed to those clients when appropriate.

Duplicate base event requests are blocked locally and thus only

the first such one ever reaches the remote server. The trigger

engines are capable of combining events in a complex manner,

20 such as to notify a client only when a combination of time

events, job events and/or other events have occurred, thus

being suitable for use in a batch system.